

REMARKS

Applicant has received and carefully reviewed the Office Action mailed April 22, 2009. Favorable reconsideration is respectfully requested in view of the above amendments and the following comments.

Claim Amendments

The features formerly recited in dependent claim 19 have now been incorporated into parent claim 1. Claim 19 has been cancelled as a result, and the claim dependency of dependent claim 24 has been updated. Similarly, the features formerly recited in dependent claim 25 have now been incorporated into parent claim 3. Claim 25 has been cancelled as a result, and the claim dependency of dependent claim 26 has been updated. Independent method claim 11 has also be amended to include the same additional recitations as now included in amended claims 1 and 3. Claims 8, 9 and 18 have also been cancelled without prejudice. No new matter has been added as a result of these amendments.

Drawings

Figure 1 has been objected to as not including the legend "Prior Art." A replacement sheet has been submitted in which Figure 1 is labeled "Prior Art." Applicant accordingly requests the objection to the drawings be withdrawn.

Claim Rejections under 35 U.S.C. §102

Claims 8, 9 and 18 were rejected under 35 U.S.C. §102(b) as being anticipated by Priessnetz, U.S. Patent No. 3,581,257. These claims have been cancelled without prejudice.

Claim Rejections under 35 U.S.C. §103

Claims 1-7, 11-16 and 21-23 were rejected under 35 U.S.C. §103(a) as being unpatentable over Applicant's Admitted Prior Art (AAPA) in view of Raksha et al., U.S. Patent No. 7,047,883. Independent claims 1, 3 and 11 were amended to recite the elements of now cancelled claim 19. As such, this rejection is moot, and these claims will be discussed with respect to the rejection of claim 19, below.

Claims 19 and 24-26 were rejected under 35 U.S.C. §103(a) as being unpatentable over AAPA in view of Raksha et al. as applied to claims 1 and 3 above and further in view of Corver et al., U.S. Patent No. 5,247,317. Applicant respectfully traverses the rejection.

With respect to claim 1, the Examiner acknowledges that the AAPA does not teach to use optically variable ink (or more exactly optically variable ink of the type containing pigments that can be orientated by a magnetic field) and magnetic element(s) disposed on the impression cylinder at a location corresponding to the impression on the substrate so as to orientate the pigments contained in the optically variable ink and create a varying optical effect in the impression. The Examiner additionally refers to Raksha et al. (US Patent No. 7,047,883 B2) which is allegedly supposed to teach the above-listed features.

As far as the subject matter of former dependent claims 19 and 25 was concerned, the Examiner further referred to Corver et al. (US Patent No. 5,247,317) to reject the subject-matter thereof as being unpatentable over the AAPA in view of Raksha et al. as applied to claims 1 and 3, and further in view of the Corver et al. reference. Applicants respectfully disagree.

Corver et al. relate to an electrostatic printing device for reproducing information, and more specifically to an electromagnetic printing device (see "Field of the Invention", col. 1, lines 7 to 9). Figure 2 of Corver et al. which is reproduced below more particularly illustrates a magnified segmented cross-section of the development zone of a printing device according to Corver et al.:

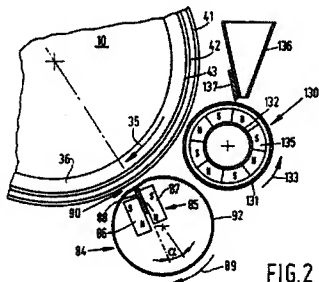


Figure 2 of Corver et al.

Reference numeral 10 designates an image-forming element in the form of a drum 36 rotatable in the direction of arrow 35 and provided with an insulating layer 43 on which are disposed a large number of adjacent and mutually insulated electrodes 42 which extend endlessly in the direction of movement of the drum 36, the electrodes being covered by a dielectric layer 41 (see column 3, lines 23-30).

A magnetic roller 84 is provided next to the rotatable drum 36, which magnetic roller 84 comprises a grounded electrically conductive sleeve 92 rotatable in the direction of arrow 89 about a magnetic system comprising a magnetic knife 85 consisting of a ferromagnetic blade 88 held between two magnets 86 and 87 (see column 3, lines 30-34). The magnets 86, 87 which are in contact with the blade 88 generate a narrow magnetic field in an image-development zone 90 (see column 3, lines 38-41).

A uniform layer of conductive magnetic toner powder is applied to the dielectric layer 41 of the rotatable drum 36 by means of a toner feed device inclusive of a toner reservoir 136 and a magnetic roller 130 which comprises a sleeve 131 of diamagnetic material, such as aluminum, brass or stainless steel. This sleeve 131 is mounted for rotation about a shaft 132 and can be driven into rotation in the direction of arrow 133 by drive means (not shown). A number of magnets 135 are mounted on the shaft 132 of the magnetic roller 130, the shaft being fixed in the frame of the printing device. A homogeneous magnetic field is thus obtained at the surface of the diamagnetic sleeve 131 under the influence of the magnets 135 (see column 3, lines 43-57).

Magnetically attractable toner powder is applied to the sleeve 131 of the magnetic roller 130 from the reservoir 136 and is retained thereon by the magnetic field produced by the magnets 135. On rotation of the sleeve 131 in the direction of arrow 133 a layer of the magnetically attractable toner powder, restricted to a given thickness by a scraper 137, is transported to a transfer zone between the image-forming element 10 and the magnetic roller 130. A uniform layer of toner powder is then formed or transferred to the dielectric layer 41 under the influence of an electric field applied across the transfer zone (see column 3, lines 57-68).

A function of the magnetic roller 130 is thus to apply and transfer a uniform layer of magnetically attractable toner powder onto the circumference of the image-forming element for subsequent development by the downstream-located magnetic roller 84 at the image-

development zone 90. A further function of the magnetic roller 130 is that toner powder remaining on the sleeve 92 of the magnetic roller 84 after passing the image-development zone is attracted by the magnetic field of the magnetic roller 130 back to the rotating sleeve 131 (see column 3, line 68, to column 4, line 32).

The function, structure and purpose of the magnetic roller 130 of Corver et al. is thus fundamentally different from what is specifically claimed in the instant application.

In particular, a key difference resides in the fact that the magnetic roller 130 is specifically and only used with toner, i.e., printing material that is fundamentally different from printing ink.

In addition, while the magnetic roller 130 of Corver et al. is specifically designed to transfer and apply a uniform layer of printing material (namely toner), the cylinder carrying at least one magnetic element which is a constituent of the claimed invention is not at all designed to apply or transfer any such printing material (namely optically variable printing ink in the context of the claimed invention). The cylinder of the claimed invention is rather used to orient pigments that are contained in the optically variable ink that has been applied onto a substrate by means of the claimed at least one screen. Claim 1, for example, recites "said magnetic element being placed at a location corresponding to said impression on said substrate performed by said screen so as to orient the pigments contained in the optically variable ink and create a varying optical effect in said impression."

Most importantly, in order to orient the pigments contained in the applied ink, the cylinder of the claimed invention is brought into contact with the substrate onto which the optically-variable ink has been applied, whereas, according to Corver et al., the magnetic roller 130 does not contact the substrate to be printed at all. See for example, Corver et al, column 3, lines 43-69.

Lastly, the magnets 135 of the magnetic roller 130 are stationary in the case of Corver et al. Column 3, lines 52-54. In contrast, the claimed invention requires the at least one magnetic element to be on the printing surface of the cylinder so as to rotate together with the cylinder so as to follow the movement of the substrate onto which the impression of optically-variable printing ink has been made.

It is therefore believed that one of ordinary skill in the art would have readily recognized that the teaching of Corver et al. is not applicable to the specific needs and requirements of the claimed invention, and, consequently, that there is no suggestion or motivation to make the proposed combination.

Applicant therefore respectfully submits that independent claims 1, 3 and 11 (and corresponding dependent claims 2, 4-7, 12-16, 21-24 and 26) are patentable over the cited prior art.

Conclusion

Reexamination and reconsideration are respectfully requested. It is respectfully submitted that all pending claims are now in condition for allowance. Issuance of a Notice of Allowance in due course is requested. If a telephone conference might be of assistance, please contact the undersigned attorney at (612) 677-9050.

Respectfully submitted,

Matthias Gygi

By his Attorney,

Date: _____

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